

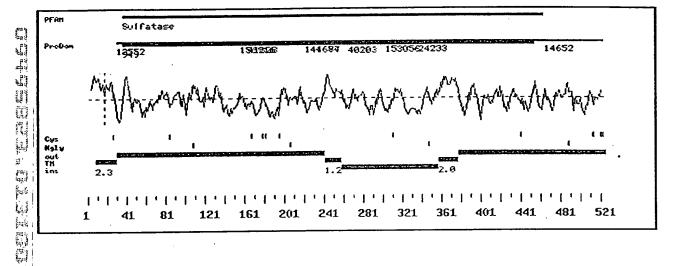
Sequence length 2175

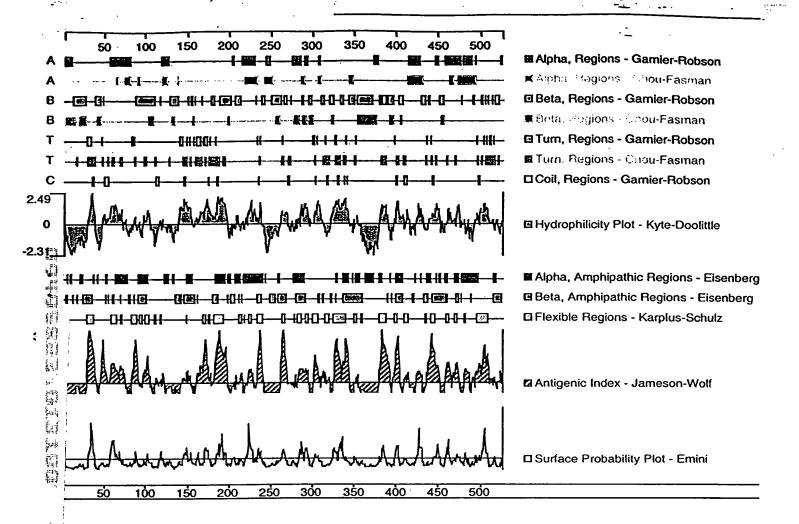
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TTT	<b>SAAA</b> (	SIGA	GCAG	AAAG	GAAG	CICI	CAGA	AAAA	ICIC	TAGI	3616	GCIG	CUST	'CC.II	CCAG	ACAA'	ICGG	AATC	CIGC	
		•	M	G.	w	т.	F	т.	v.	17	т.	L	Δ.	Ċ	17	٠	F	s	G.	. 17
CTIV	CACC	ACC A															rrc :			51
F	L	Y	P	L	v	D	F	С	I	s	G	K	T	R	G	Q	K	P	N	37
TTT	CTT	TAT	CCT	CTT	GTG	GAT	TTT	TGC	ATC	AGT	GGG	AAA	ACA	AGA	GGA	CAG	AAG	CCA	AAC	111
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F	V ~	I	I	L	A	D CMT	D	M	G	W	G		L		A	N	W TGG	A	E	57
111	GIG	AII	AII	110	GCC	GAI	GAC	AIG	333	100	331	GAC	CIG	GGA	GCA	AAC	166	GCA	GAA	171
т	K	D	T	A	N	L	D	ĸ	M	A	s	E	G	M	R	F	v	D	F	77
ACA	AAG	GAC	ACT	GCC	AAC	CTT	GAT	AAG	ATG	GCT	TCG	GAG	GGA	ATG	AGG	TTT	GTG	GAT	TTC	231
H	A	A	A	S		С	S		S			S			T	G	R	L	G	97
CAT	GCA	GCT	GCC	TCC	ACC	TGC	TCA	ccc	TCC	CGG	GCT	TCC	TIG	CTC	ACC	GGC	CGG	CTT	GGC	291
L	R	N	G	v	т	R	N	F	Δ	v	т	s	W	G	G	L	P	L	N	117
																	ccc			351
E	т	T	L	A	E		L	Q	Q				v		G	I	I	G	K	137
GAG	ACC	ACC	TTG	GCA	GAG	GTG	CTG	CAG	CAG	GCG	GGT	TAC	GTC	ACT	GGG	ATA	ATA	GGC	AAA	411
		٠ _	_		**	_		.,				_	-	_	_	_			_	150
W	H	L	G	H	H	G	S	Y TAT		. P	N	F	R	G	F	D CAT	Y TAC	T)C	F	157 471
166	CAI	CII	GGA	CAC	CAC	GGC	101	IAI	CAC	CCC	wic	110	CGI	GGI	111	GAI	IAC	IAC	111	4/1
G	I	P	Y	s	н	D	M	G	C,	т	D	т	P	G	Y	N	н	P	P	177
GGA	ATC	CCA	TAT	AGC	CAT	GAT	ATG	GGC	TGT	ACT	GAT	·ACT	CCA	GGC	TAC	AAC	CAC	CCT	CCT	531
С	P	A	С	P	Q	G	D		P		R	N	L	Q	R	D	С	Y	T	197
TGT	CCA	GCG	TGT	CCA	CAG	GGT	GAT	GGA	CCA	TCA	AGG	AAC	CTT	CAA	AGA	GAC	TGT	TAC	ACT	591
D	17	A	L	P	т.	Y	E	N	τ.	N	т	v	E	0	Þ	v	N	L	s	217
																	AAC			651
s	L	A	Q	K	Y	A	E					F			R	A	S	T	S	237
AGC	CTT	GCC	CAG	AAG	TAT	GCT	GAG	AAA	GCA	ACC	CAG	TTC	ATC	CAG	CGT	GCA	AGC	ACC	AGC	711
_	_	_	_	-		v	17				**			17	_	-	P	v	т	257
G	R	P	ALA.	L CTC		Y TAT						M		Calc:			ccc		-	771
GGG	AUG	ccc	110	CIG			010	001	C10	<b>O</b> CC	<b></b>	1120	<b></b>	0.0				0.0		• • •
Q	L	P	A	A	P	R	G	R	s	L	Y	G	A	G	L	W	E	M	D	277
CAG	CTA	CCA	GCA	GCG	CCA	CGG	GGC	AGA	AGC	CTG	TAT	CCT	GCA	GGG	CTC	TGG	GAG	ATG	GAC	831
																			_	
	L					K													L	297
AGT	CTG	GTG	GGC	CAG	ATC	AAG	GAC	AAA	GIT	GAC	CAC	ACA	GIG	AAG	GAA	AAC	ACA	TIC	CIC	891
W	E	T	G	D	N	G	Ð	W	Δ	0	ĸ	C	F	τ.	Α.	G	s	v	G	317
																	AGT			951
			_ <del>_</del> <b>-</b>																	
						Q											T <sub>.</sub>		W	337
ccc	TTC	ACT	GGA	TTT	TGG	CAA	ACT	CGT	CAA	GGG	GGA	AGT	CCA	GCC	AAG	CAG	ACG	ACC	TGG	1011
E	G	G	Ħ	R	v	P	A	L	А	Y	W	p	G	R	v	P	v	N	v	357

GAA GGA GGG CAC CGG GTC CCA GCA CTG GCT TAC TGG CCT GGC AGA GTT CCA GTT AAT GTC 1071 TALLSVLDIFPTVVA T S ACC AGC ACT GCC TTG TTA AGC GTG CTG GAC ATT TTT CCA ACT GTG GTA GCC CTG GCC CAG 1131 S L P Q G R R F D G V D S E v L F 397 GCC AGC TTA CCT CAA GGA CGG CGC TTT GAT GGT GTG GAC GTC TCC GAG GTG CTC TTT GGC 1191 R S Q P G H R V L F H P N S G A A G E 417 CGG TCA CAG CCT GGG CAC AGG GTG CTG TTC CAC CCC AAC AGC GGG GCA GCT GGA GAG TTT GALQTV R L E R Y K A 437 GGA GCC CTG CAG ACT GTC CGC CTG GAG CGT TAC AAG GCC TTC TAC ATT ACC GGT GGA GCC 1311 A C D G S T G P E L Q H K F P L 457 AGG GCG TGT GAT GGG AGC ACG GGG CCT GAG CTG CAG CAT AAG TTT CCT CTG ATT TTC AAC TAEAV PLER G A E CTG GAA GAC GAT ACC GCA GAA GCT GTG CCC CTA GAA AGA GGT GGT GCG GAG TAC CAG GCT PEVRKVLADVLQDI A 497 GTG CTG CCC GAG GTC AGA AAG GTT CTT GCA GAC GTC CTC CAA GAC ATT GCC AAC GAC AAC 1491 А DYTQDPSVT P 517 ATC TCC AGC GCA GAT TAC ACT CAG GAC CCT TCA GTA ACT CCC TGC TGT AAT CCC TAC CAA 1551 С R COAA 526 ATT GCC TGC CGC TGT CAA GCC GCA TAA 1578 CAGACCAATTTTTATTCCACGAGGAGGAGTACCTGGAAATTAGGCAAGTTTGCTTCCAAATTTCATTTTTACCCTCTTT

AAATAAAGGCATACATGAAAAAAAAAAAAAAAA





#### Prosite Pattern Matches:

Prosite version: Release 12.2 of February 1995

>PS00001 | PD0C00001 | ASN\_GLYCOSYLATION N-glycosylation site.

 Query:
 117
 NETT
 120

 Query:
 215
 NLSS
 218

 Query:
 356
 NVTS
 359

 Query:
 497
 NISS
 500

>PS00005 | PD0C00005 | PKC\_PHOSPHO\_SITE Protein kinase C phosphorylation site.

Query: 28 SGK 30 Query: 93 TGR 95 Query: 237 SGR 239 290 Query: TVK 292 Query: 422 TVR 424

>PS09006|PD0C00006|CK2\_PH0SPH0\_SITE Casein kinase II phosphorylation site.

Query: 120 TLAE 123 Query: 290 TVKE 293 Query: 335 TTWE 338 Query: 364 SVLD 367 Query: 444 TGPE 447 Query: 499 SSAD 502

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>PS00000 | PDOC00008 | MYRISTYL N-myristoylation site.

Query: 12 GVSFSG 17 Query: 33 GQKPNF Query: 52 GANWAE 57 Query: 97. GLRNGV 102 Query: 113 GLPLNE 118 Query: 158 GIPYSH 163 Query: 328 GGSPAK 333 Ouery: 388 GVDVSE 393 Query: 418 GALQTV 423 Query: 435 GGARAC 440

>PS00009 | PD0C00009 | AMIDATION Amidation site.

Query: 382 QGRR 385

>PS00149|PD0C00117|SULFATASE\_2 Sulfatases signature 2.

Query: 129 GYVTGIIGKW 138

Input file Fbh23553fl.seq; Output File 23553.trans Sequence length 4321

COCACGCCTCCGGCTAATGAATCTTGGGGCCGGTGTCGGGCCGGGGGGGCGTTGATCGGCAACTAGGAAACCCCAGGGGC AGAGGCCAGGAGGGAGGCAGCGATCAGAGGCCAGGCCTTCCCGGCTGCCGGCGTCCTCGGAGGTCAGGGCAGAT GAGGAACATGACTCTCCCCCTTCGGAGGAGGAAGGAAGTCCCGCTGCCACCTTATCTCTGCTCCTCTGCCTCCTCCCTG AAACTTGGCAAATGACATGCAGGTTCTTCAAGGCAGAATAATTGCAGAAAATCTTCAAAGGACCCTATCTGCAGATGTT CTGAATACCTCTGAGAATAGAGATTGATTATTCAACCAGGATACCTAATTCAAGAACTCCAGAAATCAGGAGACGGAGA M K Y S C C A L V L Α 11 CATTITGTCAGTITTGCAACATTGGACCAAATACA ATG AAG TAT TCT TGC TGT GCT CTG GTT TTG GCT V L G T E L L G S L C S T v R S P R 31 GTC CTG GGC ACA GAA TTG CTG GGA AGC CTC TGT TCG ACT GTC AGA TCC CCG AGG TTC AGA 93 IQQERKNIRPN Ι I 51 GGA CGG ATA CAG CAG GAA CGA AAA AAC ATC CGA CCC AAC ATT ATT CTT GTG CTT ACC GAT 153 LGSLQVMNK Т R KIM 71 GAT CAA GAT GTG GAG CTG GGG TCC CTG CAA GTC ATG AAC AAA ACG AGA AAG ATT ATG GAA 213 А Т F T NAFVTTPM 91 CAT GGG GGG GCC ACC TTC ATC AAT GCC TTT GTG ACT ACA CCC ATG TGC TGC CCG TCA CGG 273  $\mathbf{T}$ M G K Н N H N V Y 111 TCC TCC ATG CTC ACC GGG AAG TAT GTG CAC AAT CAC AAT GTC TAC ACC AAC AAC GAG AAC S S P S W MHEP R  ${f T}$ F A Y L 131 TGC TCT TCC CCC TCG TGG CAG GCC ATG CAT GAG CCT CGG ACT TTT GCT GTA TAT CTT AAC 393 Y T F F G R A K N Y N E 151 AAC ACT GGC TAC AGA ACA GCC TIT TIT GGA AAA TAC CTC AAT GAA TAT AAT GGC AGC TAC 453 P G W R E W L G LI K N S R 171 ATC CCC CCT GGG TGG CGA GAA TGG CTT GGA TTA ATC AAG AAT TCT CGC TTC TAT AAT TAC 513 R N G I K E K н G F D Y A 191 ACT GTT TGT CGC AAT GGC ATC AAA GAA AAG CAT GGA TTT GAT TAT GCA AAG GAC TAC TTC 573 Т LITN D E S I N Y F K M SKRM 211 ACA GAC TTA ATC ACT AAC GAG AGC ATT AAT TAC TTC AAA ATG TCT AAG AGA ATG TAT CCC 633 V M M V I S H A P A H G E 231 CAT AGG COC GTT ATG ATG GTG ATC AGC CAC GCT GOG COC CAC GGC COC GAG GAC TCA GOC 693 F S K L Y P N A S Q H I TPS 251 CCA CAG TTT TCT AAA CTG TAC CCC AAT GCT TCC CAA CAC ATA ACT CCT AGT TAT AAC TAT 753 M D KHWIMQYTGPM L 271 GCA CCA AAT ATG GAT AAA CAC TGG ATT ATG CAG TAC ACA GGA CCA ATG CTG CCC ATC CAC N I L Q R K R T. Т M S 291 ATG GAA TIT ACA AAC ATT CTA CAG CGC AAA AGG CTC CAG ACT TIG ATG TCA GTG GAT GAT 873 т E N 311



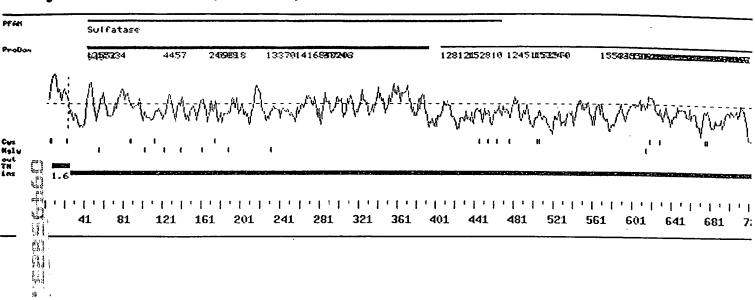
TCT GTG GAG AGG CTG TAT AAC ATG CTC GTG GAG ACG GGG GAG CTG GAG AAT ACT TAC ATC Y H I G Q F G L V K G K S H G ATT TAC ACC GCC GAC CAT GGT TAC CAT ATT GGG CAG TTT GGA CTG GTC AAG GGG AAA TCC 331 DIRV P F F I R G P S V E P ATG CCA TAT GAC TIT GAT ATT CGT GTG CCT TIT TIT ATT CGT GGT CCA AGT GTA GAA CCA 351 G S I V P Q I VLNIDLAPTI GGA TCA ATA GTC CCA CAG ATC GTT CTC AAC ATT GAC TTG GCC CCC ACG ATC CTG GAT ATT 1113 G L D T P P D V D G K S V L K L 391 GCT GGG CTC GAC ACA CCT CCT GAT GTG GAC GGC AAG TCT GTC CTC AAA CTT CTG GAC CCA G N R F R T N K K A K I W R GAA AAG CCA GGT AAC AGG TTT CGA ACA AAC AAG AAG GCC AAA ATT TGG CGT GAT ACA TTC L V E R G K F L R K K E E S S K N I Q Q 431 CTA GTG GAA AGA GGC AAA TTT CTA CGT AAG AAG GAA GAA TCC AGC AAG AAT ATC CAA CAG P K Y E R V K E L C Q Q A H L 451 TCA AAT CAC TTG CCC AAA TAT GAA CGG GTC AAA GAA CTA TGC CAG CAG GCC AGG TAC CAG TACEO P G Q K W Q C I E D T S G K 471 ACA GCC TGT GAA CAA CCG GGG CAG AAG TGG CAA TGC ATT GAG GAT ACA TCT GGC AAG CTT RIHKCK G P S D L L T V R 491 CGA ATT CAC AAG TGT AAA GGA CCC AGT GAC CTG CTC ACA GTC CGG CAG AGC ACG CGG AAC 1473 L Y A R G F H D K D K E C S C R E S G Y 511 CTC TAC GCT CGC GGC TTC CAT GAC AAA GAC AAA GAG TGC AGT TGT AGG GAG TCT GGT TAC A S R S Q R K S Q R Q F L R N Q G ТР CGT GCC AGC AGA AGC CAA AGA AAG AGT CAA CGG CAA TTC TTG AGA AAC CAG GGG ACT CCA P R F V H T R Q T R S L S V E F E 551 AAG TAC AAG CCC AGA TTT GTC CAT ACT CGG CAG ACA CGT TCC TTG TCC GTC GAA TTT GAA I N L E E E E E L Q V L Q D 571 GGT GAA ATA TAT GAC ATA AAT CTG GAA GAA GAA GAA GAA TTG CAA GTG TTG CAA CCA AGA K R H D E G H K G P R D L Q A S S AAC ATT GCT AAG CGT CAT GAT GAA GGC CAC AAG GGG CCA AGA GAT CTC CAG GCT TCC AGT MLADSSNA VGPPTT 611 GGT GGC AAC AGG GGC AGG ATG CTG GCA GAT AGC AGC AAC GCC GTG GGC CCA CCT ACC ACT V R V T H K C F I L P N D S IHCERE GTC CGA GTG ACA CAC AAG TGT TTT ATT CTT CCC AAT GAC TCT ATC CAT TGT GAG AGA GAA Y Q S A R A D W K н к а у I D KE TE 651 CTG TAC CAA TCG GCC AGA GCG TGG AAG GAC CAT AAG GCA TAC ATT GAC AAA GAG ATT GAA ALQDK IKNL R E V R G K R R K 671 GCT CTG CAA GAT AAA ATT AAG AAT TTA AGA GAA GTG AGA GGA CAT CTG AAG AGA AGG AAG PEECSCSKQSYYNKEKG 691 CCT GAG GAA TGT AGC TGC AGT AAA CAA AGC TAT TAC AAT AAA GAG AAA GGT GTA AAA AAG 2073 KLKSHLHPF KEAAQEVDS CAA GAG AAA TTA AAG AGC CAT CTT CAC CCA TTC AAG GAG GCT GCT CAG GAA GTA GAT AGC 2133

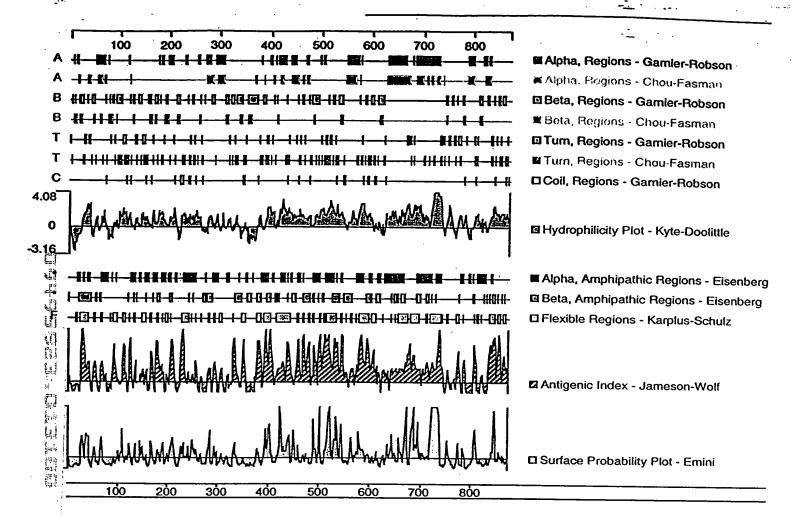
Q L F K E N N R R K K E R L AAA CTG CAA CTT TTC AAG GAG AAC AAC CGT AGG AGG AAG AAG GAG AAG GAG AAG AGA 2193 G E E C S L P G L T С F T H CGG CAG AGG AAG GGG GAA GAG TGC AGC CTG CCT GGC CTC ACT TGC TTC ACG CAT GAC AAC 751 2253 W Α W N L G S F AAC CAC TOG CAG ACA GOC COG TTC TOG AAC CTG GGA TCT TTC TGT GCT TGC ACG AGT TCT \_C 771 N T Y C L R T V N E T H N F L AAC AAT AAC ACC TAC TGG TGT TTG CGT ACA GTT AAT GAG ACG CAT AAT TTT CTT TTC TGT 791 2373 Т G F Y F D M N T GAG TTT GCT ACT GGC TTT TTG GAG TAT TTT GAT ATG AAT ACA GAT CCT TAT CAG CTC ACA 811 N T v E R G I L N 0 L H 0 AAT ACA GTG CAC ACG GTA GAA CGA GGC ATT TTG AAT CAG CTA CAC GTA CAA CTA ATG GAG T. 831 T. С Q G Y K Q C N P R P K CTC AGA AGC TGT CAA GGA TAT AAG CAG TGC AAC CCA AGA CCT AAG AAT CTT GAT GTT GGA 851 2553 N G G S Y D L H R G Q L W D G AAT AAA GAT GGA GGA AGC TAT GAC CTA CAC AGA GGA CAG TTA TGG GAT GGA TGG GAA GGT 871 2613 872 TAA 2616

GTCACTATGAGCAAAATAAAACAAATAAGACTCAAACTGCTCAAAGTGACGGGTTCTTGGTTGTCTCTGCTGAGCACGC TGTGTCAATGGAGATGGCCTCTGCTGACTCAGATGAAGACCCAAGGCATAAGGTTGGGAAAACACCTCATTTGACCTTG  ${\tt CCAGCTGACCTTCAAACCCTGCATTTGAACCGACCAACATTAAGTCCAGAGAGTAAACTTGAATGGAATAACGACATTC}$ CAGAAGTTAATCATTTGAATTCTGAACACTGGAGAAAAACCGGAAAAAATGGACGGGGCATGAAGAGACTAATCATCTGGA AAAGAACTTCCCCAGTATGGTGGTCCTGGAAAGGACATTTTTGAAGATCAACTATATCTTCCTGTGCATTCCGATGGAA TTTCAGTTCATCAGATGTTCACCATGGCCACCGCAGAACACCGGAAGTAATTCCAGCATAGCGGGGAAGATGTTGACCAA AAACTGTTACCTTACCCTAAACACAGTATTTCTTTTTAACTTTTTTATTTGTAAACTAATAAAAGGKAATCACAGCCACC AACATTCCAAGCTACCCTGGGTACCTTTGTGCAGTAGAAGCTAGTGAGCATGTGAGCAAGCGGTGTGCACACGGAGACT GCTTGGTTGGTTTGKACTAAAACAGTATTATCTTTTGAATATCGTAGGGACATAARKWMMMMMKKTWWTCMAW YMRAKAKGSYWRRAWKGGGSTYTYTSKKRKSTMWAMWYKWSCMCCYSKKRWWAWTYWYWMMYWCMYKYTSSSTGRYKRN KTAATGAAGTT

#### **Analysis of 23553 (871 aa)**

144







#### Prosite Pattern Matches for 23553

Prosite version: Release 12.2 of February 1995

>PS00001 | PD0C00001 | ASN\_GLYCOSYLATION N-glycosylation site.

64 Query: NKTR 67 Query: 111 NCSS 114 Query: 131 NNTG 134 Query: NGSY 151 170 Query: NYTV 173 Query: NESI 200 Query: 240 NASQ 243 NDSI Query: 626 773 Query: NNTY 776 Query: NETH 786

>PS00005|PD0C00005|PKC\_PHOSPHO\_SITE Protein kinase C phosphorylation site.

Query: TVR 26 Query: SPR 29 Query: 66 TRK 68 TGK 98 Query: 206 SKR 208 Query: TNK 402 425 Ouery: SSK 427 Query: SGK 484 Query: TVR 486 Query: 488 STR 490 505 Query: SCR 507 Query: 516 SQR 518 Query: 520 522 SOR Query: 530 TPK 532 611 Query: TVR 613 Query: 615 THK 617 Query: SAR 637

>PS000006|PD0C00006|CK2\_PH0SPH0\_SITE Casein kinase II phosphorylation site.

Query: 107 TNNE 110 Query: SVDD 291 Query: 367 TILD 370 TPPD 379 452 Query: TACE 455 Query: 505 SCRE Query: TVNE 784

>PS00007 | PD0C00007 | TYR\_PHOSPHO\_SITE Tyrosine kinase phosphorylation site.

Query: 637 RAWKDHKAY 645

>PSG0002|PDOC00008|MYRISTYL N-myristoylation site.

GSLCST 161 GLIKNS 166 Query: GLVKGK 330 Query: GGNRGR 597 592 Query: GSFCAC 768 GNKDGG 856 851 Query:

>PS00523|PD0C00117|SULFATASE\_1 Sulfatases signature 1.

Query: 85 PMCCPSRSSMLTG 97

23553 Oncology Taqman

Input file Fbh25278FL1.seq; Output File 25278.trans Sequence length 2940

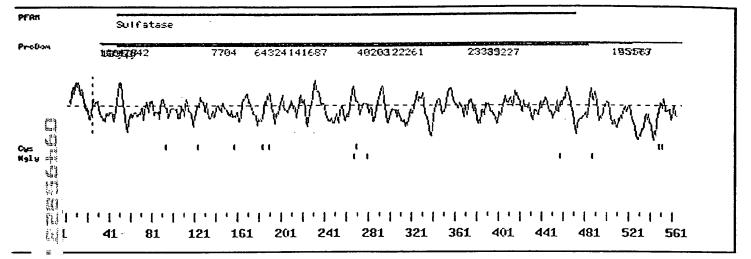
CCACGCGTCCGCCCACGCGTCCGGCTGCCACGCCGCGTCTCAGGCTGGGCCGGGCTGAGCCGGGGAAGAGGGAGCAAAAGG CGGCGCAGGGCCTGCGCTTAGGCAGCGGGGGGCAGCTCGGCCGCGGGCCTGACCTCCCCAGAGGGCCCCGCTGGGGCCGA GCAGATCCGGCCCAGCCGTCCGGCAGCCAGTCCCGGACCAGACACTGGACCGTCCCCGGGGGGGCGCTGAACTCCCTCGC М H Т L T G F S L V CGCGGGCCGGCTTGGCG ATG CAC ACC CTC ACT GGC TTC TCT CTG GTC AGC CTG CTC AGC TTC 15 45 G Y L S W D W A K P S F v Α D G GGC TAC CTG TCC TGG GAC TGG GCC AAG CCG AGC TTC GTG GCC GAC GGG GCC GAG GCT 35 105 P S Α P P 0 P P Н I Τ F т GGC GAG CAG CCC TCG GCC GCT CCG CCC CAG CCT CCC CAC ATC ATC TTC ATC CTC ACG GAC 55 165 Y H D v G Y Н G S D Ι Ε T GAC CAA GGC TAC CAC GAC GTG GGC TAC CAT GGT TCA GAT ATC GAG ACC CCT ACG CTG GAC 75 225 V K L G E N Y Y I Q P AGG CTG GCG GCC AAG GGG GTC AAG TTG GAG AAT TAT TAC ATC CAG CCC ATC TGC ACG CCT 95 285 S R R Y 0 Ι Н G L O Н TCG CGG AGC CAG CTC CTC ACT GGC AGG TAC CAG ATC CAC ACA GGA CTC CAG CAT TCC ATC 115 345 0 0 P N С P L D 0 Т P 0 ATC CGC CCA CAG CAG CCC AAC TGC CTG CCC CTG GAC CAG GTG ACA CTG CCA CAG AAG CTG 135 405 Y S н M v G K Н Τ. G F CAG GAG GCA GGT TAT TCC ACC CAT ATG GTG GGC AAG TGG CAC CTG GGC TTC TAC CGG AAG 155 465 T F D Т F L G GAG TGT CTG CCC ACC CGT CGG GGC TTC GAC ACC TTC CTG GGC TCG CTC ACG GGC AAT GTG G N 175 525  $\mathbf{T}$ Y Y D N С D G P G v С G GAC TAT TAC ACC TAT GAC AAC TGT GAT GGC CCA GGC GTG TGC GGC TTC GAC CTG CAC GAG 195 585 G N G L S G Q Y s Т M L Y 215 GGT GAG AAT GTG GCC TGG GGG CTC AGC GGC CAG TAC TCC ACT A'G CTT TAC GCC CAG CGC S Н Ι L A S Н S P Q R P L GOC AGC CAT ATC CTG GCC AGC CAC AGC CCT CAG CGT CCC CTC TTC CTC TAT GTG GCC TTC 235 705 0 A V Н Т P L Q s P R E Y Y 255 CAG GCA GTA CAC ACA CCC CTG CAG TCC CCT CGT GAG TAC CTG TAC CGC TAC CGC ACC ATG 765 G R R K Y Α Α M v Т С M D E 275 GGC AAT GTG GCC CGG CGG AAG TAC GCG GCC ATG GTG ACC TGC ATG GAT GAG GCT GTG CGC 825 N T W A L K R Y G F Y N N S r · r 295 AAC ATC ACC TGG GCC CTC AAG CGC TAC GGT TTC TAC AAC AAC AGT GTC ATC ATC TCC 885 F S G G S N W P G K 5 AGT GAC AAT GGT GGC CAG ACT TTC TCG GGG GGC AGC AAC TGG CCG CTC CGA GGA CGC AAG 315 945 G G v R GLGF V H S P GGC ACT TAT TGG GAA GGT GGC GTG CGG GGC CTA GGC TTT GTC CAC AGT CCC CTG CTC AAG

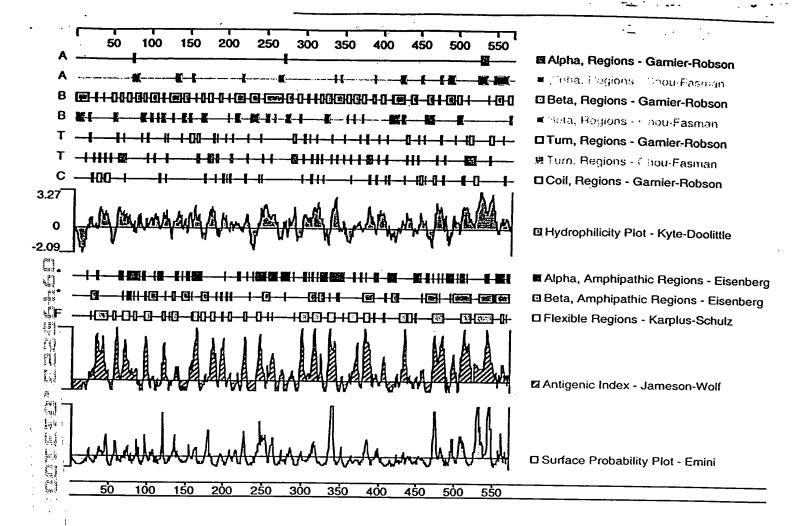
Q'R T S R A L. M H I T D W CCA AAG CAA CGG ACA AGC CGG GCA CTG ATG CAC ATC ACT GAC TGG TAC CCG ACC CTG GTG 355 1065 A G T S A A D G L D G Y .D v GGT CTG GCA GGT GGT ACC ACC TCA GCA GCC GAT GGG CTA GAT GGC TAC GAC GTG TGG CCG 375 1125 E G R P R Т E I L H N T GCC ATC AGC GAG GGC CGG GCC TCA CCA CGC ACG GAG ATC CTG CAC AAC ATT GAC CCA CTC D 395 1185 н A QHGSLEGG F G I N T TAC AAC CAT GCC CAG CAT GGC TCC CTG GAG GGC GGC TTT GGC ATC TGG AAC ACC GCC GTG A 415 1245 I R v G E W K L T G D P G Y CAG GCT GCC ATC CGC GTG GGT GAG TGG AAG CTG CTG ACA GGA GAC CCC GGC TAT GGC GAT G 435 1305 P P Q T L TFPGSW A W N L E TIGG ATC CCA CCG CAG ACA CTG GCC ACC TTC CCG GGT AGC TIGG TGG AAC CTG GAA CGA ATG 455 R Q A V W L F N I S P Y GCC AGT GTC CGC CAG GCC GTG TGG CTC TTC AAC ATC AGT GCT GAC CCT TAT GAA CGG GAG E 475 1425 QRPD G v v R  ${f T}$ L L Α GAC CTG GCT GGC CAG CGG CCT GAT GTG GTC CGC ACC CTG CTG GCT CGC CTG GCC GAA TAT А 495 1485 I P V R Y P Α E N P R Α AAC CGC ACA GCC ATC CCG GTA CGC TAC CCA GCT GAG AAC CCC CGG GCT CAT CCT GAC TTT 515 1545 N G Α W G P WASDE E E E E E E G AAT GGG GGT GCT TGG GGG CCC TGG GCC AGT GAT GAG GAA GAG GAA GAG GAA GGG AGG R s F S R G R R K K ĸ С K Ι С K L GCT CGA AGC TTC TCC CGG GGT CGT CGC AAG AAA AAA TGC AAG ATT TGC AAG CTT CGA TCC 1665 K L N T R LMSQR 570 TTT TTC CGT AAA CTC AAC ACC AGG CTA ATG TCC CAA CGG ATC TGA 1710 TGGTGGGGAGAAAACTGTCCTTTAGAGGATCTTCCCCACTCCGGCTTGGCCCTGCTGTTTCTCAGGGAGAAGCCT GTCACATCTCCATCTACAGGGAGTTGGAGGGTGTAGAGTCCCTTGGTTGAACAGGGTAGGGAGCCTGGATAGGAGTGGG TGGGAATAAACCAGACTGGGATGCCTGTGTCTCAGTCCTGCCTCCTCACGGACTTGCTCTGTGACCTCAGGTGACCCAC ATGAGCTTTTAGCCTCAGTTTCCTCATCTGTAAAATGAGCTCTAATGACTTTGTGACTCTTTGGTGTGGCCCTGGAGCC TGGGGCCACGGTGGAGTTCCTGGCCGGCCTTGCCACTTGACAACTCCTTTAAGGCTTCCCCCTTAACACGGGATCCCTG TGGTGGTGTTTGGGAGTTGCCTGGAGGCAACTCCAAGCCTGGCCCCCAGCTGAAGCATGGCAATCTGGCTGCTCTCTAC AGGGACCCCCAAGCGCTGTGGGTGGAGGGCAGGGGTCGGGGGGTTGACCTTCTTGGGTCTTCACATGGGCTAGGCCAG TCCTCCGGTCAGACTGGTGTCAGGCACCGTGGTGCAAAATTCCTCTTCTGGCCCCTCCAGTACCCAGAGAAACTGGCTG GGCCATTAACTGCTGCAGCACCAAGGGTGGTAGAAAGAGCTGTGAAGAGCCCCCCAAACCAGTACCAGGACACCTGGGTT  $\tt CTCCTGTGACCTGGGGCACAGTTCTTGCCCTCTAGGCCTTGATTTCCCCACCTGCAAGTGGGGATGCCAGCCTGGCTC$ 

FIG 10 (-2-)

TGCCTCCTTCATGAGGCTCTGGAAGACTGGCCAAGGTTGTGGAGGAGCTTGTGAACTTGATTAAAGTGTCGTAACATGG

### **Analysis of 25278 (569 aa)**





## Prosite Pattern Matches for 25578



```
PESOSOBL [POOCOGOOI | ASK_GLYCOSYLATION N-glycosylation sice.
```

```
    Query:
    276
    MITM
    279

    Query:
    288
    MISV
    291

    Query:
    466
    MISA
    469

    Query:
    496
    MRTA
    499
```

>PS000014|PD0C000004|CAMP\_PHOSPHO\_SITE cAMP- and cGMP-dependent protein kinase phosphorylation site.

```
Query: 314 RKGT 317
```

>PS00005 | PD0C00005 | PKC\_PHOSPHO\_SITE Protein kinase C phosphorylation site.

```
Query: 102
                TGR
                        104
Query: 160
                TRR
Query: 244
                SPR
                        246
Query: 340
                TSR
                        342
Query: 383
       457
                SVR
                        459
Query:
       566
                SOR
                        568
```

06 PDCC00006 CK2\_PHOSPHO\_SITE Casein kinase II phosphorylation site.

```
1
   67
           SDIE
                  70
244
           SPRE
    268
           TCMD
                  271
   317
           TYWE
                  320
363
           SAAD
14
   $25
           SDEE
                  528
```

PDCC00007 TYR\_PHOSPHO\_SITE Tyrosine kinase phosphorylation site.

```
Q 134 KLQEAGY 140
```

18 PDOC00008 MYRISTYL N-myristoylation site.

```
Que: 110
               GLQHSI 115
Query? 169
               GSLTGN 174
Query: 205
               GQYSTH 210
Query: 300
               GQTFSG 305
Query: 321
               GGVRGL 326
Query: 356
               GLAGGT 361
Query: 402
               GSLEGG 407
Query: 409.
               GIWNTA 414
Query: 447
               GSWINL 452
```

>PSG0009 PDOC00009 AMIDATION Amidation site.

```
        Query:
        312
        RGRK
        315

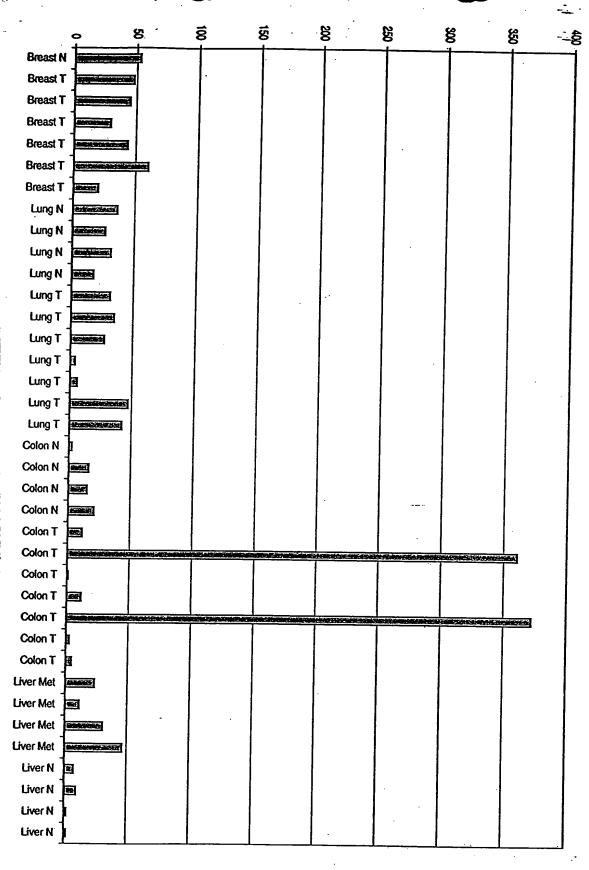
        Query:
        $41
        RGRR
        $44
```

>P200149 PD0C00117 SULFATASE\_2 Sulfatases signature 2.

Query: 139 GYSTHMVGKW 148

>PS00523 PD0C00117 SULFATASE\_1 Sulfatases signature 1.

Query: 91 PICTPSRSQLLTG 103



Input file 26212cons; Output File 26212pat Sequence length 2266

**ATCACTTCTGGAAGATTAAAGTTGTCGGACATGGTGACAGCTGAGAGGAGGAGGAGGATTTCTTGCCAGGTGGAGAGTCT** TCACCGTCTGTTGGGTGCATGTGTGCGCCCGCASCGGCGCGGGGGGGGTGTTCTCCGCGTGGAGTCTCACCTGGGACC G P P P G C A H S R TGAGTGA ATG GCT CCC AGG GGC TGT GCG GGG CAT CCG CCT CCG CCT TCT CCA CAG GCC TGT 54 M G 38 GTC TGT CCT GGA AAG ATG CTA GCA ATG GGG GCG CTG GCA GGA TTC TGG ATC CTC TGC CTC 114 Y S W G 0 Α L E E E E E G 58 CTC ACT TAT GGT TAC CTG TCC TGG GGC CAG GCC TTA GAA GAG GAG GAA GAA GGG GCC TTA 174 G E K L E P S Т Т т 78 CTA GCT CAA GCT GGA GAG AAA CTA GAG CCC AGC ACA ACT TCC ACC TCC CAG CCC CAT CTC 234 I I Ι Q Ġ F R v D D D 98 ATT TTC ATC CTA GCG GAT GAT CAG GGA TTT AGA GAT GTG GGT TAC CAC GGA TCT GAG ATT 294 Α E G L Е 118 A ACA CCT ACT CTT GAC AAG CTC GCT GCC GAA GGA GTT AAA CTG GAG AAC TAC TAT GTC 354 Éij F Ι Т K 138 G CCT ATT TGC ACA CCA TCC AGG AGT CAG TTT ATT ACT GGA AAG TAT CAG ATA CAC ACC \$ 17 kg н S Τ Ι R P т 0 Р N C L · P T. D N 158 A CTT CAA CAT TCT ATC ATA AGA CCT ACC CAA CCC AAC TGT TTA CCT CTG GAC AAT GCC 15 E V 178 C CTA CCT CAG AAA CTG AAG GAG GTT GGA TAT TCA ACG CAT ATG GTC GGA AAA TGG CAC R M Т R R G F D 198 G GGT TTT TAC AGA AAA GAA TGC ATG CCC ACC AGA AGA GGA TTT GAT ACC TTT TTT GGT 594 T. G S G D Y Y Т Н Y K С D S P 218 М C CTT TTG GGA AGT GGG GAT TAC TAT ACA CAC TAC AAA TGT GAC AGT CCT GGG ATG TGT 654 E N D N Α A W D Y D N 238 C TAT GAC TTG TAT GAA AAC GAC AAT GCT GCC TGG GAC TAT GAC AAT GGC ATA TAC TCC 714 т Q т 258 0 R 0 А H N ACA CAG ATG TAC ACT CAG AGA GTA CAG CAA ATC TTA GCT TCC CAT AAC CCC ACA AAG CCT Y v Н S P L 278 O O ATA TTT TTA TAT ATT GCC TAT CAA GCT GTT CAT TCA CCA CTG CAA GCT CCT GGC AGG TAT 834 R S T T N Ι N R R R M 298 TTC GAA CAC TAC CGA TCC ATT ATC AAC ATA AAC AGG AGG AGA TAT GCT GCC ATG CTT TCC N 318 TGC TTA GAT GAA GCA ATC AAC AAC GTG ACA TTG GCT CTA AAG ACT TAT GGT TTC TAT AAC 954 Y S S D N G P G 338 AAC AGC ATT ATC ATT TAC TCT TCA GAT AAT GGT GGC CAG CCT ACG GCA GGA GGG AGT AAC 1014 K T E 358 TGG CCT CTC AGA GGT AGC AAA GGA ACA TAT TGG GAA GGA GGG ATC CGG GCT GTA GGC TTT

L K N K G TVCKELVH GTG CAT AGC CCA CTT CTG AAA AAC AAG GGA ACA GTG TGT AAG GAA CTT GTG CAC ATC ACT 378 1134 P T L I S L A E G I D GAC TGG TAC CCC ACT CTC ATT TCA CTG GCT GAA GGA CAG ATT GAT GAG GAC ATT CAA CTA 398 D I W E Т I E G R T. GAT GGC TAT GAT ATC TGG GAG ACC ATA AGT GAG GGT CTT CGC TCA CCC CGA GTA GAT ATT S P н I Y Т K A K N G S TTG CAT AAC ATT GAC CCC ATA TAC ACC AAG GCA AAA AAT GGC TCC TGG GCA GCA GGC TAT W 438 1314 W N T A I Q s A I R v GGG ATC TGG AAC ACT GCA ATC CAG TCA GCC ATC AGA GTG CAG CAC TGG AAA TTG CTT ACA 458 G S D W 17 P P Q S F GGA AAT CCT GGC TAC AGC GAC TGG GTC CCC CCT CAG TCT TTC AGC AAC CTG GGA CCG AAC S N 1434 H N E Ι T S S T G K S v W L CGG TGG CAC AAT GAA CGG ATC ACC TCG TCA ACT GGC AAA AGT GTA TGG CTT TTC AAC ATC 498 1494 Į T P Y E v R D L S N R Y P ACA GCC GAC CCA TAT GAG AGG GTG GAC CTA TCT AAC AGG TAT CCA GGA ATC GTG AAG AAG 518 1554 R R L S 0 F N K T Α v P v 6.0 CTA CGG AGG CTC TCA CAG TTC AAC AAA ACT GCA GTG CCG GTC AGG TAT CCC CCC AAA R Y 538 14 1614 R S N P R N G CCC AGA AGT AAC CCT AGG CTC AAT GGA GGG GTC TAG 551 1653 ACCATGGTATAGAGAGAAACCAAGAAAAAGAAGCCAAGCAAAAATCAGGCTGAGAAAAAGCAAAAGAAAAGCAAAA 6  ${\tt AGAAGAAGAAACAGCAGAAAGCAGTCTCAGGTTCAACTTGCCATTCAGGTGTTACTTGTGGATAAGCACAAATATTT}$ CTTTGGTTAAACTTTAATCAGTTCTTATCTTTCATCTGTTTCCTAGGTAAACCAGCAAATTTGGCTCGATAATATC Aug le

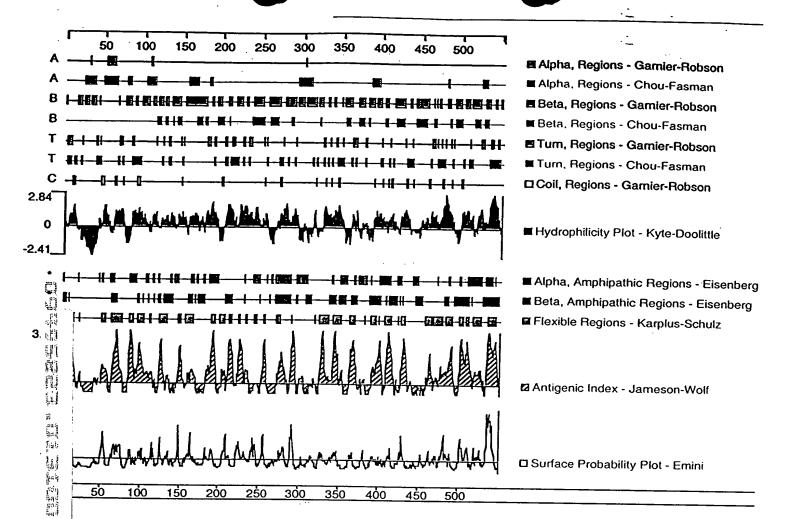
GGCCTAAGCGTCAGGCTTGTTTTCATGCTGTGCCACCTGGTGCCGAATTC

H

TP ]

Analysis of 26212prot (550 aa)

PFRH	Sulfatase
ProDom	136269 1536434 23613 7784 1416823188 18768558822261 42365 35227
NS12 Total	
	1 41 81 121 161 201 241 281 321 361 401 441 481 521



### Prosite Pattern Menes for 26212prot

Prosite version: Release 12.2 of February 1995

>PS00001 | PDOC00001 | ASN\_GLYCOSYLATION N-glycosylation site.

Query: 157 NATL 160

Query: 306 NVTL 309

Query: 318 NNSI 321

Query: 431 NGSW 434

Query: 497 NITA 500

Query: 527 NKTA 530

PS00004 PDOC00004 CAMP\_PHOSPHO\_SITE cAMP- and cGMP-dependent protein kinase phosphorylat:

ery: 521 RRLS 524

00005 PDOC00005 PKC\_PHOSPHO\_SITE Protein kinase C phosphorylation site.

ry: 131 TGK 133

ry: 189 TRR 191

ry: 243 TQR 245

ry: 413 SPR 415

ery: 489 TGK 491

ery: 509 SNR 511

SPS00006 PDOC00006 CK2\_PHOSPHO\_SITE Casein kinase II phosphorylation site.

Query: 298 SCLD 301

Query: 347 TYWE 350

Query: 386 SLAE 389

Query: 406 TISE 409

>PS00007 | PDOC00007 | TYR\_PHOSPHO\_SITE Tyrosine kinase phosphorylation site.

Query: 163 KLKEVGY 169

>PS00008 PDOC00008 MYRISTYL N-myristoylation site.

Query: 28 GALAGF 33

Query: 56 GALLAQ 61

Query: 139 GLQHSI 144

s - Bertala.

FIG. 18(1)

Query: 198 GSLLGS 203
Query: 235 GIYSTQ 240

Query: 329 GGQPTA 334

Query: 343 GSKGTY 348

Query: 351 GGIRAV 356

Query: 432 GSWAAG 437

Query: 439 GIWNTA 444

>PS00149 | PDOC00117 | SULFATASE\_2 Sulfatases signature 2.

Query: 168 GYSTHMVGKW 177

><u>PS00523</u>|PDOC00117|SULFATASE\_1 Sulfatases signature 1.

Query: 120 PICTPSRSQFITG 132